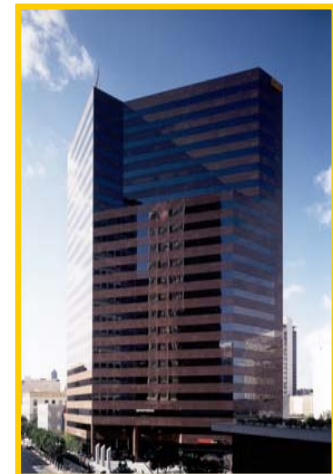


Microturbine vs. Reciprocating RealEfficiency - RealReturns

Kevin D. Best

707 426.3300

kbest@realenergy.com





A New Power Standard

**RealEnergy develops, owns, and operates onsite generation systems.
RealEnergy employs CHP technologies that:**

- provide blackout responsive power solutions
- provide power pricing indexed below utility provider
- provide clean and reliable electrical and thermal power
- provide opportunities to defer or reduce capital expense
- provide additional energy capacity, comfort, and back-up power reliability

At no cost and no risk to Facility Owners!





Selected RealEnergy Investors

RealEnergy is owned by some of the country's foremost institutional and individual real estate and energy investors:

- **GFI Energy Ventures**
 - Preeminent energy venture fund invests in maturing companies
- **Global Investment Partners**
 - Affiliate of California State Employees Pension Fund
- **Real Estate Owners and Operators**
 - Publicly traded REITs
 - Pension fund advisory firms
 - National and regional developers, investors and operators
- **Detroit Edison**
 - Major Midwestern utility; energy tech leader in generation and management
- **Rothschild**
 - World renowned private investor and banking entity



RealEnergy Clients

Advisors	Pension Funds	Private Operators	REITs	Hotels/Hospitals	State/Muni
AEW CB Richard Ellis Investors CommonWealth Lend Lease Lubert-Adler RREEF Seagate SSR Realty Starwood Capital Transwestern Walton Street Westbrook	Alaska Permanent Fund Corporation Bayernfonds CalPERS CalSTRS General Motors Asset Management Government of Singapore Harvard Endowment STRS Ohio	Amstar Divco West Ensemble Investments Fremont Properties GEM Investors Layton-Belling & Assoc. Southwest Value Partners Strategic Partners Tishman Speyer Tower Realty Trammell Crow	Arden Realty	Marriott Corp. Kor Group	State of California DGS

Marriott Fremont



RealEnergy Properties

Operating



State of California
San Francisco



Arden Realty, San Diego, CA



CalSTRS, San Diego, CA



Kor Group
Santa Monica, CA



Arden Realty, Fountain Valley, CA



Walton/SCS Advisors,
Fremont, CA



State of California
San Francisco



State of California, Oakland

RealEnergy Properties

Operating



Ensemble, Long Beach, CA



KOR, Marina Del Rey, CA



Arden Realty, San Diego, CA



RREEF, Carlsbad, CA



**CommonWealth Partners
Costa Mesa, CA**



**CommonWealth Partners
San Diego, CA**



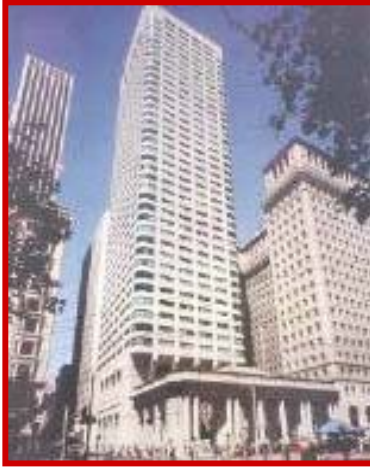
**Arden Realty – Phase Two
Beverly Hills, CA**



Arden Realty, Long Beach, CA

RealEnergy Properties

Under Construction



RREEF, San Francisco, CA



Seagate, San Francisco, CA



**Trammell Crow
Torrance, CA**



CommonWealth Partners, San Diego, CA



**Transwestern
So. California and New Jersey**



RealEnergy Properties

Under Construction



Fremont Properties
San Francisco, CA



Westbrook Partners/Walton Street
Boston, MA



Walton Street
New York, NY and Boston, MA



Seagate Properties, San Francisco, CA



CalSTRS
San Francisco, CA

RealEnergy Properties

Under Construction



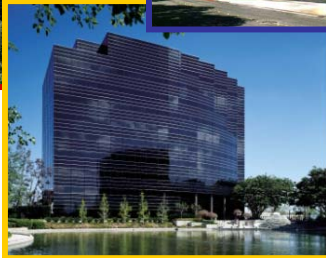
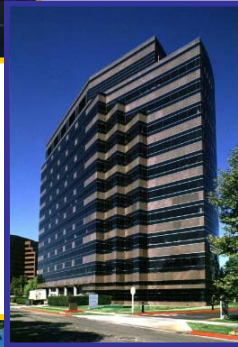
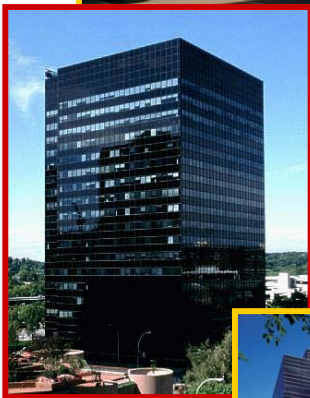
CB Richard Ellis
So. California
and New York



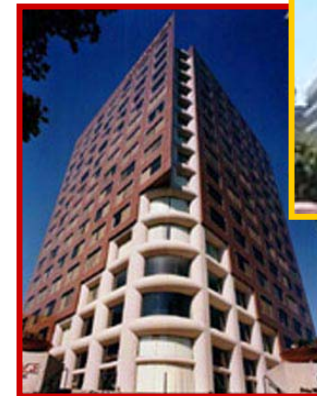
Tower Realty
San Francisco, CA



Flynn Properties
San Francisco, CA



Tishman Speyer
Santa Monica, CA



Divco West
San Jose, CA



RealEnergy Target Properties

RealEnergy provides onsite generation for a variety of asset types with a primary focus on:

Office Buildings & Corporate Facilities

Minimum Size: 200,000 square feet



Hotels, Hospitals & Colleges

Minimum Size: 150 Rooms/Beds (Full Service)
200 Rooms (Limited Service)

Retail

Minimum Size: 500,000 square feet (shopping malls)





Sample Contract Terms

Energy Services Agreement & Lease

- **Term:** 15 Years
- **Access Fee/Rent:** 7.5% of gross sales (office buildings)
10% (hospitality, industrial, education)
- **Electric Price:** Indexed to utility price for delivered power
- **Thermal Price:** Indexed to utility price. ($\text{fuel price} \times \text{thermal energy used} / \text{efficiency}$)
- **Service:** Ancillary electric, heat and power. Exclusive provider of DG. Parallel interconnection.
- **Agreements:** Leasehold and Energy Services Contract
- **Priority:** First energy purchased by facility
- **Standby Power:** Option provided by side letter

333 Anita

Customer Revenue Profile

SYSTEM INFORMATION										
Project Name: 333 Anita					System kW Size: 400					
Building Type: CHD Office					System Chiller Size: 116					
Building S.F. / Rooms: 203,500 S.F.					Existing Chiller Capacity: 0					
Utility ID: TWH					RealEnergy Estimated Chiller Size: 116					
Tariff / Rate Not Defined					- Hours					
Total Peak Amps: 7					Current Chiller System Efficiency: 0.80 kW per TON/Hr					
Main Panel Voltage: 480					Customer Access Fee: 7.5%					
Average Est. Peak Load (Amps): 70					203,500					
RealEnergy System Design %: 51%					Total RealEnergy Revenue: 312,378					
Theoretical System Size [1] 362					Current Energy Cost: \$2.31 per S.F.					
Number of Units: 2										
Actual System Size: 400										
RealEnergy Hydraulic H.W.: 350,000 Btus										
Domestic Hot Water: -										
CUSTOMER RESULTS										
					Customer Revenue / Savings: 23,428					
					Customer Cap. Value: 224,280					
					Commodity Discount Equivalent [2]: 15.5%					
CHILLER ANALYSIS										
Item	Electric Rate	Total Rate Hours	Total kW Hours	Utility kW Hours	RealEnergy kW Hours	RealEnergy \$/hr	Utility Charge	RealEnergy Charge	Total Cost	Customer Access Fee
NON CHILLER ELECTRIC										
Peak Non-Chiller Electric		528	208,004							
Shoulder Non-Chiller Electric		2,937	1,130,833							
Off Peak Non-Chiller Electric		5,205	1,611,444							
Non-Chiller Electric Use		8,790	3,349,281							
CHILLER ELECTRIC										
Peak Chiller Electric		528	105,214							
Shoulder Chiller Electric		2,937	220,390							
Off Peak Chiller Electric		5,205	33,015							
Chiller Electric Use		8,790	340,619							
TOTAL ELECTRIC										
RealEnergy Index \$/hr										
On Peak Electric	\$0.2417	528	373,217	182,253	190,964	\$1.24	44,047	46,153	90,200	3,641
Shoulder Electric	\$0.1993	2,937	1,750,219	703,780	900,439	\$1.04	10,894	11,420	208,004	8,545
Off Peak Electric	\$0.0925	5,205	1,611,444	49,094	1,233,350	\$1.04	45,353	129,212	195,565	3,016
TOTAL ELECTRIC USE	\$0.1628	8,790	5,744,880	1,335,127	2,566,753	\$1.17	178,275	209,544	408,217	21,602
CHILLER ANALYSIS										
Item	Electric Rate	Cost per TON/Hr	Run Hours	TOTAL TON Hours	Utility TON Hours	RealEnergy TON Hours	RealEnergy \$/hr	Building Charge	RealEnergy Charge	Total Customer Access Fee
CHILLER COST [4]										
Chilled Water (Peak)	\$0.1641	528	182,190	151,517	50,643	27.8%	Ind. Above	8,311	8,311	923
Chilled Water (Shoulder)	\$0.1404	2,937	453,020	272,482	175,538	38.9%	Ind. Above	15,808	15,808	1,190
Chilled Water (Off Peak)	\$0.0795	5,205	105,200	62,796	42,404	39.9%	Ind. Above	5,199	5,199	398
Chiller Capital & Maintenance	\$0.0000				291,613					
Total Chilled Water Cost				742,380	495,765	39.5%		29,378	29,378	2,309
HOT WATER COSTS										
Item	Gas Rate	Cost per TON/Hr	Run Hours	TOTAL TON Hours	Utility TON Hours	RealEnergy TON Hours	RealEnergy \$/hr	Building Charge	Total Customer Access Fee	
Hydronic Hot Water	\$0.4000	\$0.4706	-	10,924	5,749	51.7%	2,705	2,436	5,141	183
Domestic Hot Water	\$0.0000	\$0.0000								
Total Hot Water					5,749	51.7%	2,705	2,436	5,141	183
TOTAL ELECTRIC COSTS										
							178,275	209,544	408,217	
							180,980	312,378	495,358	
							Percentage of Total RealEnergy Revenue: 7.5%			
							23,428			
CUSTOMER CAPITALIZED ACCESS FEE										
							Cap Rate: 10.00%			
							224,280			

Note: [1] - Due to the rating of the production unit, the theoretical system size is rounded down to the nearest available unit increment.

[2] - Quantity of Therms takes three aggregated gas bills for 12 months.

[3] - Total savings from RealEnergy divided by the approximate value of the equivalent amount of commodity electricity sold by RealEnergy.

[4] - Chiller costs are based on estimates of run times and may not reflect actual costs.

Note: [1] - Due to the sizing of the production rate, the fractional system size is rounded down to the nearest available unit increment.

[2] Quantity of Thermal from aggregated gas bills for 12 months.

[3] - Total savings from RealEnergy divided by the approximate value of the equivalent amount of commodity electricity sold by RealEnergy.

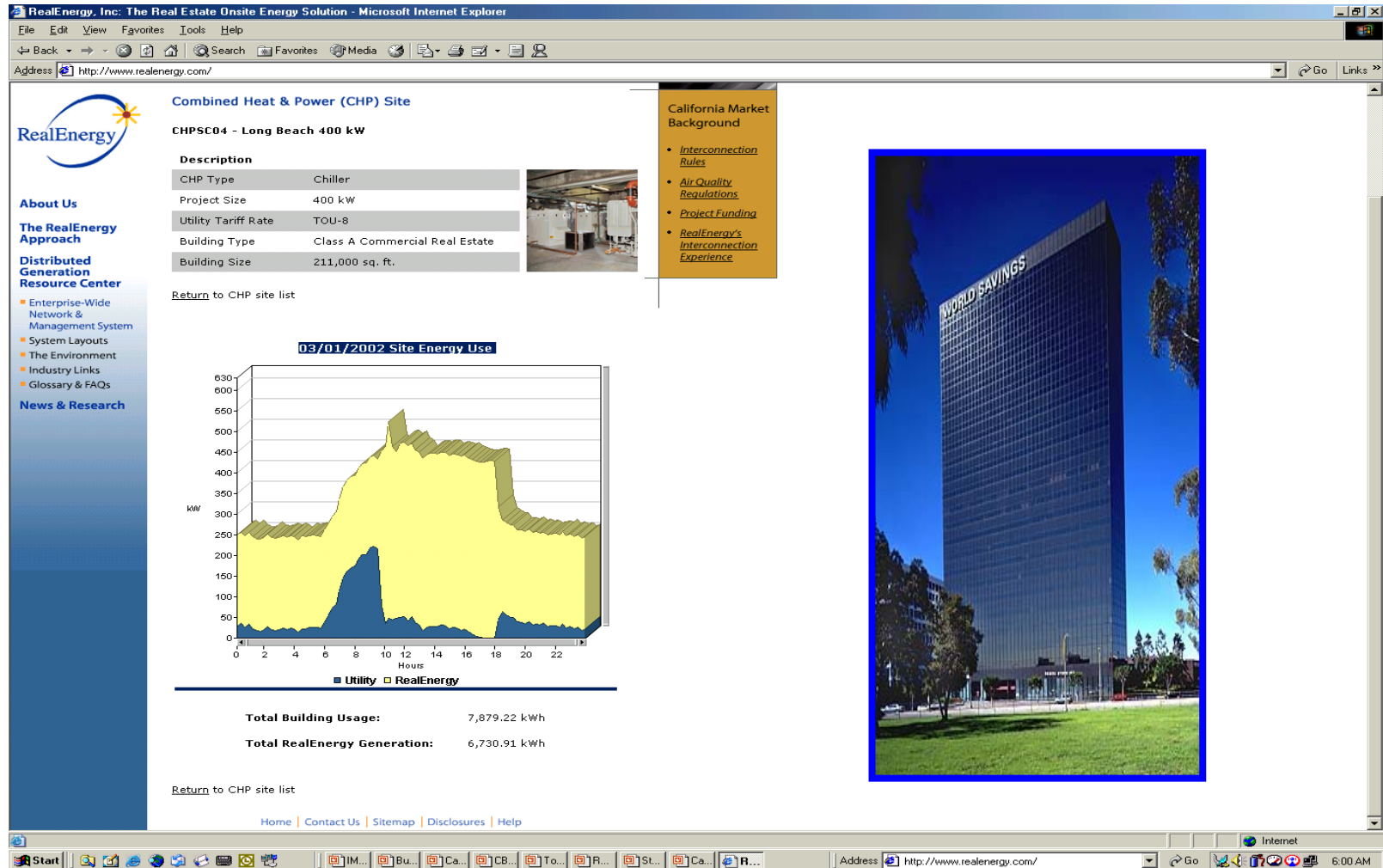
[4] Chiller costs are based on estimate of run times and may not reflect actual costs.

Facility Owners

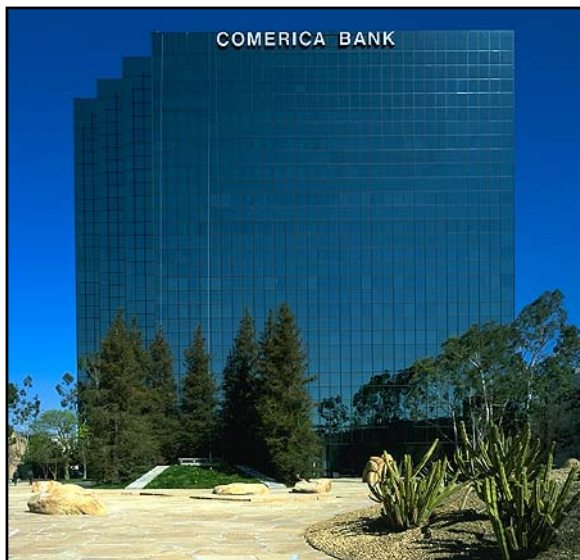
- New and durable revenue/savings source
- Premium power services and revenues
- No capital outlay
- No technology risk
- Constructive use of unused space
- Peak demand/peak price load reductions for load shaping and effective commodity management
- Security: Reduce grid uncertainty; diversity
- Differentiation and Retention: Respond to investor, guest and tenant demand for energy solutions and management
- Positive corporate environmental statement
- Enhance HVAC infrastructure and capacity

Facility Occupants

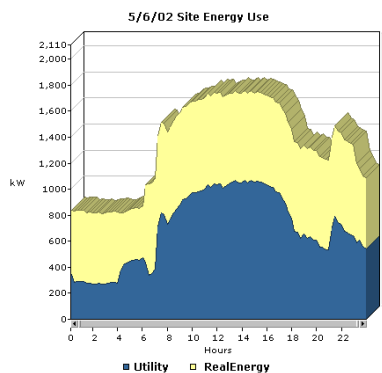
- Back-up power for basic and specialty building services and loads
- Comfort: Additional cooling and heating capacity
- Opex: Load shaping supports lower commodity costs for residual load – reduced CAM
- Capex: Reduced building outlays and passthroughs
- Increased power quality
- Environmental solution



Two Town Center – Fact Sheet

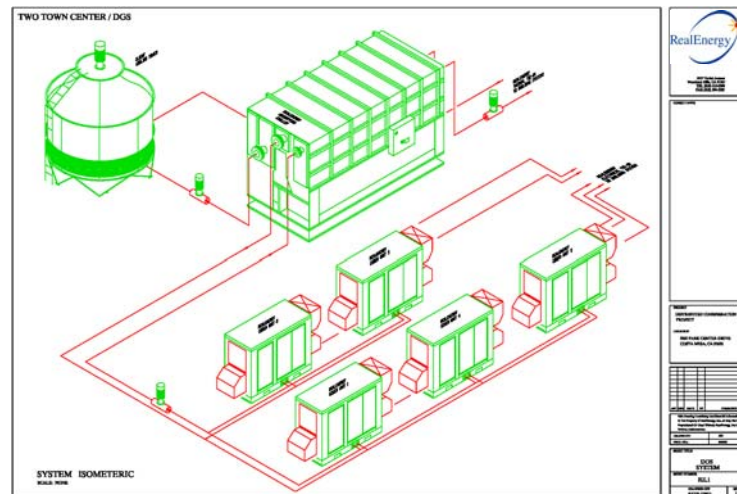


- **Operator:** Commonwealth Partners
- **Owner:** Fifth Street Properties
- **Partner:** CalPERS
- **System Size:** 1000 kW – (5) 200kW generators
- **Building Size:** 714,000 square feet
- **Type:** Heat recovery with absorption chiller – 275 tons
- Provides approximately 69% of building's total electric requirement
- Future capability to provide 75% of building's hydronic heating requirement
- Provides 50% of building's chilled water requirement
- 98% reduction in NOx emissions
- Access fee provides substantial capital and operational expense savings
- Potential for blackout protection to building load or specific tenant load
- Load shaping to drive more effective commodity purchases



Total Building Usage: 32,227.91 kWh

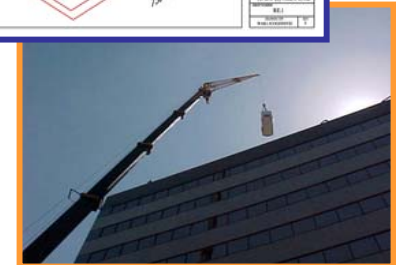
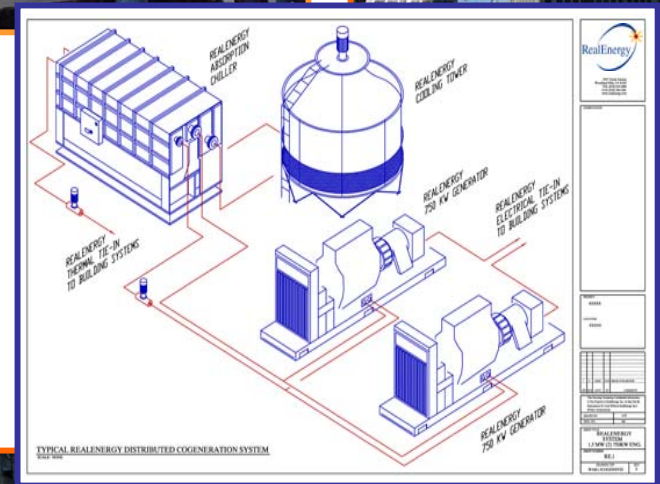
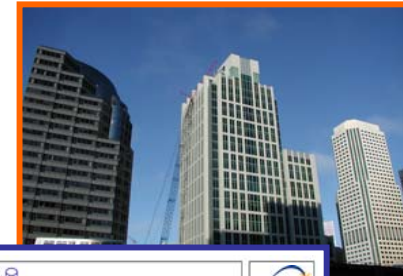
Total RealEnergy Generation: 15,352.91 kWh





RealChallenges – “Don’t Try This At Home”

- Entitlements (air, building, and interconnection)
- Utility barriers to entry (standby, departing load)
- Choosing right technology and manufacturer
- Capital intensive
- Building integration
- Keeping the profit/savings
- Scaling (systems, multiple locations)
- Optimizing thermal applications and system ops
- Inefficient commodity purchasing (gas, electricity)
- Surplus sales (ancillary services)



RealRisk Management

Risk we manage everyday...

- Load Profile
- Facility Energy Demand
- Design
- Incentives
- Interconnection
- Gas and Electric Tariffs
- Legislative
- PURPA
- Environmental
- Operational

Risk we cannot manage...

- Noncompetitive Heat Rates
 - Increases Gas Risk
 - Increased PURPA Risk
 - Decreases Profitability

“Wall Street requires these technologies compete head to head with IC engines, or we invest in IC engines...”

Technology Progress

- Ceramics
- Thermal Barrier Coatings
- Interconnection Strategies
- Modules for Packages
 - Generation
 - Heat Recovery (Flatplate)
 - Absorption
 - Adsorption
 - Liquid Desiccants
 - Subcooling

Market Progress

- DG mainstream in some sectors
- DG interconnection easier
- DG attracts equity and debt finance
- DG is profitable



Natural Resources
Canada

Ressources naturelles
Canada



Leading the way to:

- Increased Host Profitability
- Energy Security/Risk Management
- Improved Tenant Service
- Responsible Corporate Behavior
- A Better Environment

